

STUDI

ZABARELLA AND THE INTENTIONALITY OF SENSATION¹

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Jacopo Zabarella was one of the most important and influential thinkers working within the Aristotelian tradition in the Sixteenth Century². In this paper, I discuss the approach he takes to one of the most controversial issues in Aristotle's thought, namely, the nature of sensory experience. Aristotle's theory of sensation has been at the center of recent scholarship and the interpretive lines are clearly drawn. On the one hand, there are those who believe that Aristotle holds that sensation is a material process, while others hold that he believes it is a spiritual or immaterial one³. The purpose of this paper is not to develop a new interpretation of Aristotle, but to show how one important sixteenth century Aristotelian thinker dealt with the ambiguities in Aristotle's texts.

Now, one important aspect in the development of interpretations of Aristotle's account of sensation was the introduction by Avicenna of the notion of "intention" in the context of sensation. These intentions, or meanings, stand at

1. An early version of this paper was read at the 2000 meeting of The Renaissance Society of America in Florence, Italy and audience questions and comments provided me with helpful feedback. I want to thank the Marquette University Philosophy Department for granting me a reduced course load in the Fall 2000 semester that allowed me time to complete the paper. Also, I would like to thank Prof. Edward P. Mahoney both for his encouragement and for many helpful conversations about Renaissance Aristotelianism. Any virtues this paper may possess are due in great part to his example and his willingness to share his knowledge. All faults are, of course, my responsibility.

2. For Zabarella's life and writings, see W.F. Edwards, *The Logic of Jacopo Zabarella (1533-1589)*, Unpublished Ph.D. thesis, Columbia University 1960, 1-82; C. Lohr, *Latin Aristotle Commentaries II. Renaissance Authors*, Olschki, Firenze 1988, pp. 497-503; A. Poppi, *La dottrina della scienza in Giacomo Zabarella*, Antenore, Padova 1972, pp. 15-24.

3. For a materialist interpretation, see, for example, R. Sorabji, *Intentionality and Physiological Processes: Aristotle's Theory of Sense Perception*, in M. Nussbaum and A. Rorty (eds.), *Essays on Aristotle's De Anima*, Oxford University Press, Oxford 1992. For a strongly stated immaterialist view, see M. Burnyeat, *Is an Aristotelian Philosophy of Mind Still Credible?* In M. Nussbaum and A. Rorty, *Essays on Aristotle's De anima*, cit.

the origin of what we today mean by intentional object⁴. Some later Latin thinkers tended to equate intentions with the sensible species, thereby making sensation a process of receiving species and identifying the reception of a species with the awareness of sensible information⁵. Zabarella rejects both of these developments within the Latin tradition. Also, he resists the trend in medieval thought to excessively “spiritualize” the sensible species. In this paper, I set forth the reasons for Zabarella’s rejection of an immaterial sensible species as well as his argument against equating the reception of the species with sensory cognition. In doing so, I outline his own view of the process of sensation, paying particular attention to the way in which he uses the notion of “intentionality.”

Zabarella’s account of sensation is set out clearly in his treatise *De sensu agente* and it is to this work that I primarily refer in what follows⁶. The topic of this treatise, the notion of an agent sense, had a long history in later medieval thought and it is outside the scope of this paper to sketch that history⁷. Nonetheless, I need to say a few things about that tradition in order to show the background against which Zabarella develops his theory of sensation. The central text that motivates discussion of the agent sense is provided by Averroes:

One can say that sensibles do not move the senses in the way that they exist outside the soul, for they move the senses insofar as they are intentions, since in matter they are not intentions in act, but in potency. And one cannot say that this difference occurs by virtue of the difference of subject such that the intentions come to be on account of a spiritual matter which is the sense, not on account of an external mover. For it is better

4. See the remarks in R. Sorabji, *From Aristotle to Brentano: The Development of the Concept of Intentionality*, in H. Blumenthal and H. Robinson (eds.), *Aristotle and the Later Tradition, Oxford Studies in Ancient Philosophy*, supplementary volume, Clarendon Press, Oxford 1991, pp. 236-37.

5. See R. Sorabji, *From Aristotle to Brentano*, cit., pp. 239-43.

6. Zabarella, *Liber De sensu agente* in his *De rebus naturalibus libri XXX, quibus quaestiones quae ab Aristotelis interpretibus hodie tractari solent, accurate discutuntur*, Frankfurt 1606/07, cols. 831-856. In what follows, I refer to this work as *De sensu agente* and cite it by chapter and column number. I use the reprint edition published by Minerva G.M.B.H. in 1966. The work was first published in 1590. There have been few previous discussions of Zabarella’s account of sensation. The most detailed is that of Poppi, *La dottrina della scienza in Giacomo Zabarella*, cit., pp. 65-80. For additional brief remarks, see L. Spruit, *Species Intelligibilis: From Perception to Knowledge*, Vol. II: Renaissance Controversies, Later Scholasticism, and the Elimination of the Intelligible Species in Modern Philosophy, E. J. Brill, Leiden 1994, pp. 225-26; E.P. Mahoney, *Agostino Nifo’s De sensu agente*, «Archiv für Geschichte der Philosophie», LIII (1971), pp. 139-40, n. 67 mentions two other references containing discussion of *De sensu agente*, but each is no more than a page.

7. For further information concerning the notion of an agent sense, see E.P. Mahoney, *Agostino Nifo’s De sensu agente*, cit., pp. 119-42; A. Pattin, *Pour l’histoire du sens agent au moyen âge*, «Bulletin de philosophie médiévale», XVI-XVII (1975-75), pp. 100-113; Id., *Pour l’histoire du sens agent: la controverse entre Barthélemy de Bruges et Jean de Jandun, ses antécédents et son évolution: étude et textes inédits*, Leuven University Press, Leuven 1988.

to think that the reason for the difference of matter is the difference of forms, rather than that the difference of matter is the reason for the difference of forms. Since it is so, we must assert that the external mover in the case of the senses is different from the sensibles, as was necessary in the case of the intellect. It was seen, therefore, that if we concede that the difference of forms is the reason for the difference of matter, that it will be necessary that the mover be external. But Aristotle was silent about this because it is hidden in the case of sensation and is apparent in the case of intellect. You ought to give this consideration, since it requires investigation⁸.

This passage provided many later Medieval and Renaissance thinkers with evidence that Aristotle taught that sensation required some agent, in addition to the sensible object, by which the sensible object could be elevated in such a way as to be suitable for use by the sense power. In short, this passage was taken to suggest that material sensible objects were not sufficient, in themselves, to move the senses. The further issue, obviously, centers around what more might be needed to make sensible objects sensible. It is also important to note in relation to this passage that the notion of “intention” is crucial and that the only way that sensibles move the sense power is as intentions. As we shall see, Zabarella explicitly rejects the notion of “intention” as it is used in this passage.

The contrasting position, that the sensible species, or sensible intentions, is somehow transmitted by the sensible object itself to the sense organs via some diaphanous medium is also discussed by Zabarella and has a long history. However, as we shall see, it too has problematic aspects that cause Zabarella to rethink the nature and role of such species or intentions. The most important objection is that in this tradition it is unclear how the reception of the species or intention is causally related to the act of sensation. He worries, in fact, that the tradition has not addressed this issue at all. As the nature of the question under consideration suggests, the key issue is the causal mechanism, the agency, of sensation and keeping that issue in mind helps us to understand more clearly the import of Zabarella’s theory.

Accordingly, there are two main issues that preoccupy Zabarella in his attempt to set forth a theory of sensation within a broadly Aristotelian framework: the nature of the sensible species and the cause of sensation. As he states: “For it is one thing to produce a species and another to make a sensation, since there is a species of color in the air produced by the object, yet there is not sensation there”⁹. His theory can best be described as broadly Aristotelian since despite a discussion that revolves around the various texts of Ari-

8. Averroes, *Commentarium magnum in Aristotelis de anima libros*, ed. F. Stuart Crawford (*Corpus Commentarium Averrois in Aristotelem*, V, 1; Cambridge, Mass., 1953), II, comm. 60, p. 221, lines 40-57. I want to thank Richard C. Taylor for allowing me to use this translation of the passage from his forthcoming translation of Averroes’s *Commentarium magnum*.

9. *De sensu agente*, VII, 847: “Quum enim aliud sit speciem producere, aliud sit facere sensationem, quia in aere est species coloris ab obiecto producta, non tamen ibi est sensio.”

stotle concerning sensation, Zabarella countenances language that is not part of Aristotle's own theory. Aristotle argues that cognition proceeds through various stages of formal identification while Zabarella works within a paradigm in which Aristotle's talk of forms and identity has been replaced by talk of species, that is, images and likenesses, that stand for or represent, but are not identical with the sensible forms existing in sensible object¹⁰. One of the virtues of his treatment of the problem is that he self-consciously aims to present a straightforward discussion and to demystify medieval approaches to the problem of sensation.

Zabarella is quite careful to situate his discussion within a clear context:

Most importantly, it must not be ignored that this question, as set forth and treated by the Latins is simple, but later many others noted that it had two dimensions and so must be divided into two [inquiries]. For first one can compare the sensible object with the sense that is moved by it and ask whether the sensible object needs at the same time another external agent either for aiding the impressing of the species in the organ of sense or whether the object alone acts and impresses the species. But then, when the impression of the species has been made, one can ask what the agent is by which an operation is produced, which we can call sensation (*sensio*) whether we distinguish sense (*sensus*) taken as a faculty or as the soul itself¹¹.

It turns out that Medieval thinkers, on Zabarella's reading, had left out of account a crucial component for any adequate theory of sensation, thereby making their own views less than useful. Two very different worries generate the division of the sensory process for Zabarella. First, there is a metaphysical worry about how a material object, a possessor of sensible qualities, is itself such that it can be sensed. Second, there is a worry about the causal mechanisms of the operation constituting sensation. In the background here is a serious question about the Aristotelian dictum that "sensation is a matter of being acted upon" (*sentire est pati*)¹². If the process of sensation is a matter of undergoing some change, then the most plausible source for such agency will be found in the activity of the sensible object or its species. However, Zabarella has a real objection to locating the primary causal element of sensation in the

10. For a discussion of the formal identity operative in Aristotle's account of sensation, see Joseph Owens, *Aristotle – Cognition, a Way of Being*, «Canadian Journal of Philosophy», 6 (1976), pp. 4-10.

11. *De sensu agente*, I, 831-32: "Ante omnia non est ignorandum, quaestionem hanc a latinis propositam, et tractatum esse tanquam simplicem, sed postea alii complures animadverterunt eam habere duplicem sensum, et in duas esse dividendam, ut revera est: primum enim comparari potest obiectum sensibile cum sensu, qui ab illo patitur, et quaeri an obiectum sensibile egeat alio externo simul agente, sive ipsum adiuuvante ad speciem in organum sensus imprimendam, an solum obiectum agat, et speciem imprimat: deinde vero facta speciei impressione quaeri potest quodnam sit agens, a quo producitur operatio quam ut a sensu proficere, seu pro anima ipso accepto distinguamus, liceat nobis sensationem appellare."

12. For the passivity intrinsic to sense, see Aristotle. *De anima*, II, 5 (416b34 and 418a1-5).

sensible object or its species and his fundamental point of departure can be found in the claim that “It must not be said that the object is really productive of cognition in the sense power”¹³. Now, if the object is not productive of the act of sensing, there is no straightforward way to salvage the Aristotelian dictum about the passivity of sensation, and the rejection of this dictum in turn requires Zabarella to generate a theory that can in some way “save” the Aristotelian account. He does this by situating the passive aspect of sensation as merely one “moment” or “instant” in the sensory process. It is precisely the rejection of the causal efficacy of the object in relation to the act of sensation that generates the two-fold division Zabarella mentions. Hence, it is necessary to consider two issues: the first has to do with the nature of the sensible species while the second has to do with the process of sensation itself. We need to see why the species cannot play the primary causal role in sensation and what source of agency does play that role.

Of course, these two issues are interconnected in such a way that we can read Zabarella’s account of the sensible species as forcing him to the view that the sensible object is not the cause of the act of sensation. At the same time, though, we shall find that given the nature of the sensory process, Zabarella must hold the theory that he does concerning the sensible species. Briefly, I want to show that Zabarella argues that the process of the reception of the sensible species is a material one. Here we must exercise some caution, since the term “material” must be understood clearly. By “material” I mean that the sensible species are always joined to matter, not that they are constituted by matter. They are not *constituted* by matter, since they are a kind of form, but they are always material forms, not incorporeal forms. Secondly, I want to show that Zabarella’s commitment to the claim that the sensible object is not the cause of sensation has important consequences for how he understands the ubiquitous word “intention.”

In what follows, I shall first consider Zabarella’s arguments concerning the nature of the sensible species. After the discussion of the nature of the sensible species, I shall develop his account of the sensory act by indicating the interesting description of intentionality that is at its center. Before I begin, I should note that in my discussion I abstract to some degree from the form that Zabarella’s writings take. His usual process involves taking particular historical figures as his points of reference and developing his own account by showing that the views others hold lead to awkward consequences that his own position avoids. I follow him in that process to some extent, but I am not concerned to evaluate Zabarella as a historian of philosophy as that would lead me too far afield from expounding his own views. My primary interest is in reconstructing Zabarella’s position on the question of sensation so that we might have a better understanding of the significance of his thought.

13. *De sensu agente*, I, 832: “...nec dicendum sit obiectum reale esse productivum cognitionis in sensu...”

1. The sensible species

The first worry – how a material object can be suitable for sensing by the human soul – derives its urgency from the following consideration:

For the sensible object is a material quality, but its species is a spiritual accident. Now, the spiritual is more noble than the material, so if the object alone produced the species without any other agent, something less noble would act above its proper powers (*vires*)¹⁴.

Lurking in the background here are several assumptions about the sensible object, but the most important is the claim that the sensible species is a spiritual accident. Zabarella accepts the view that cognition, both sensory and intellectual, takes place by means of intermediaries, so-called species, that are images of and representations of that which can be cognized. Also, there is a clear assumption that the cognitive process itself is a different sort of action than a natural change. Now, he begins by recognizing that there are two types of sensible qualities, those that act naturally as well as intentionally and those that act only intentionally. The four primary elements are of the first type – fire both produces real heat in other things and produces a sensible species – , while all other sensible qualities produce only species. So, for example, if I place a red object next to a white one, the red one does not turn the white one red and vice versa. Nonetheless, I see the white and red objects, so they must be doing something, but they are not acting in the same way that fire does. The conclusion he draws is simple enough: spiritual species are prerequisites for any sensation to take place¹⁵.

He admits that this is a strong claim and considers some alternative views that would limit such spiritual species to vision alone, allowing that the other senses are affected not intentionally, but naturally. Without going into detail here, Zabarella argues against such a view in the following way. He points out that a natural change produces a numerically distinct quality in the object it affects. The heat in one piece of wood, for example, does not transmit its own heat when heating another piece of wood. Rather it transmits a numerically distinct, that is, non-identical heat to the second piece of wood. Given this truth, which Zabarella believes is known clearly in natural philosophy, it follows that if sensation were a result of natural change, we would not sense the objects themselves, but rather a numerically distinct item. The consequence that we could never sense the original material object is too much for Zabarella and he assumes his reader will find it extreme as well “because whatever sense is said to sense it is that numerically same object by which it undergoes, not another

14. *De sensu agente*, II, 832: “Nam obiectum sensile est qualitas materialis, eius vero species est accidens spirituale; at spirituale nobilius est materialis; ergo si obiectum solum sine alio agente speciem produceret, ignobilius produceret effectum nobiliorum, et ageret supra proprias vires.”

15. *De sensu agente*, IV, 838-39.

similar one”¹⁶. The result is that the species, which is a prerequisite for sensation, must be spiritual and must act in some spiritual, that is, intentional way.

That conclusion, though, pushes us back to the original problem – how can a material object produce a spiritual species, that is, one that is not the result of a natural change? Zabarella examines two possible answers to this question, both relying on some sort of agent external to the material objects themselves. I shall call these views “higher agency views.” There are two possible higher agency views that he considers. First, there is a theory that posits an agent sense, analogous to the agent intellect, whose task is to somehow “spiritualize” the material object and create sensible species, thereby bridging the gap between the material and the spiritual. Second, he considers the possibility that God or separate substances are responsible for the spiritual species by which the sense power senses. Although he rejects both of these alternatives, the arguments he presents against them provide us with resources for understanding Zabarella’s own position.

One of Zabarella’s prime tasks in the treatise on the agent sense is to make it very clear that there is no such thing as an agent sense, yet rather surprisingly he spends little time explicitly discussing that theme. Instead, his basic strategy is to show that there is no need to posit an agent sense and he does this by providing an alternative account of sensation that he finds adequate and requires no such agent sense. Moreover, his discussion is partly “therapeutic” as well, since he believes that those who do posit an agent sense have misunderstood the notion of agency as it pertains to cognition. Perhaps the most important reason that he does not discuss the agent sense as a spiritualizing force necessary for sensation is because in the course of discussing the higher agency view, he presents an account of the sensible species in which no higher agency is necessary to account for their generation. I now turn to his discussion of the higher agency views and the consequences he draws from his rejection of them.

The view that God, or some separate substance (or substances), plays the crucial role in sensation is one that he attributes to Agostino Nifo¹⁷. The basic idea is that some agency outside the soul is necessary to elevate the sensible object so that it can be sensed and the obvious candidate for such an elevation process is God. Zabarella characterizes the position in the following way:

Suessanus [Nifo] refers the cause of the spirituality of these species to God, as to a first and remote cause, who through an intermediate material object – as through an instrument – produces a sensible species. For he says that the material sensible quality can be considered in two ways: in one way according to itself and in another way as an instrument of God. Taken according to itself, it produces only another similar material

16. *De sensu agente*, IV, 839: “Quia sensus quilibet sentire dicitur, illud idem numero obiectum a quo patitur, non aliud simile.”

17. Agostino Nifo (1470-1538) published his *De sensu agente* in 1497. For an excellent discussion of the origins, sources and themes of the treatise, see Mahoney, *Agostino Nifo’s De sensu agente*, cit. Mahoney discusses Nifo’s argument on behalf of a first mover that can provide the spirituality necessary for sensation on pp. 126-28.

[quality] as when something hot produces heat. However, taken as an instrument of God, it produces a spiritual effect, namely, through the power of the first spiritual agent, not through a faculty or its proper nature¹⁸.

In arguing against Nifo's account, Zabarella points out that it misconstrues God's causal influence. Relying on an argument taken from Thomas Aquinas, he contends that God's causality is properly proscribed within the realm of natures, not accidents and operations¹⁹. What this means is that God is the direct cause of the existence of natures – rocks, trees, cats, etc. – but not of their operations. Such an operation, or “becoming” (*feri*) depends on the particular agent and consequently comes to exist from the particular agent, not from God. Nifo's mistake, then, according to Zabarella, is that he extends God's causality too far. God does not produce the sensible species, but rather he creates the particular items in the world with their proper natures and then the natures take over the work and part of that work is the production of species. There is a thought experiment he uses to make his point. Imagine a sensible object, for example, a tree. If you remove the object, there is no species produced. However, if you take God away, the object ceases to exist, not its operations. This consideration shows the very different levels of causality at issue²⁰.

To clarify his position, Zabarella considers another view that attributes the causality of the species to some nobler being. Again, he refers to Thomas Aquinas, who in one odd passage appears to suggest that natural bodies produce two actions; one in virtue of their proper nature and another in virtue of their participation in superior agents and substances, that is, substances separated from matter²¹. Like Nifo's position, Thomas's appears to attribute the causal production of species to something outside the nature whose species it is. Accordingly, it is subject to the same criticism as Nifo's view. However, Zabarella is willing to recognize another interpretation of Thomas's passage; an in-

18. *De sensu agente*, III, 833-34: “Suessanus enim refert causam spiritualitatis harum specierum in Deum, tanquam in causam primam et remotam, quae per medium obiectum materiale, tanquam per instrumentum, producat speciem sensilem: inquit enim qualitatem sensilem materialem posse duobus modis considerati, uno modo secundum se, altero modo ut instrumentum Dei: et secundum se sumptam non producere nisi aliam similem materialem, ut quum calor calorem efficit; ut autem est instrumentum Dei, producere effectum spiritalem, scilicet per virtutem primi agentis spiritalis, non per facultatem, seu naturam propriam.”

19. St. Thomas Aquinas, *Questiones disputate De potentia Dei*, question V, article 1.

20. *De sensu agente*, III, 834.

21. *De potentia*, V, 8. This passage was frequently cited in discussion of the agent sense, having been popularized by Nifo's contemporary, Thomas De Vio, or Cardinal Cajetan. Cajetan had argued that Thomas Aquinas held that the sensible object can cause intentional being only because it participates in the causality of the separate substances. See his *Commentaria in De anima*, ed. P.I. Coquelle, O.P. 2 vols, Angelicum, Roma 1939, II, c. 11, #265-267, pp. 252-254 This view continued to be attributed to Thomas by later thinkers, including John of St. Thomas. For discussion of this problematic passage in Thomas and its history, see G. Klubertanz, *De potentia 5. 8: A Note on the Thomist Theory of Sensation*, «The Modern Schoolman», 26 (1949), pp. 323-331.

terpretation that will aid us in understanding his own view on the question at hand. On this more benign interpretation of Thomas, what he is really saying is that there is a kind of likeness between the spirituality of the separated substances and the spirituality of species, but that the latter does not depend on participating in the former. The example provided is the way in which animals are said to be prudent. There is a sense in which animals really are prudent, but there is also a sense in which they are not. After all, prudence is properly a human virtue so when we attribute it to animals, we only mean that there is a certain likeness in the activities of animals – for example, storing up nuts for the winter – that we can call prudence. In making this admission, though, we must be clear that we are not committing ourselves to the claim that the prudence proper to humans really causes the prudence in animals. Zabarella concludes:

Therefore, what Thomas says there is true only because all realities when compared to each other have a likeness in some way among themselves, so that spiritual species of sensible objects are said to be similar in some way to spiritual substances. However, it is not because they are produced by them, but because the proper nature of a sensible object is such that through itself it is apt to produce such a species both in the medium and in the sense²².

In short, then, Zabarella's chief target is the view that material sensible objects cannot produce spiritual species by themselves. In fact, he argues, they can and they do. It must be said that he does not really have a separate argument for this claim. Rather, he appears to think that it follows from the arguments against the higher agency theories. He adopts the view, which he attributes to Albert the Great, that sensible qualities by their very nature are sufficient to produce spiritual species²³. The basic idea is that the sensible qualities of sensible objects are capable, in and of themselves, of multiplying likenesses of themselves. The example he uses is that of quantity. We obviously are able to sense an object's quantity. At the same time, its action is not material, in the way that, for example, the action of heat is. It must, accordingly, produce its

22. *De sensu agente*, III, 835: "Hoc igitur, quod ibi Thomas dicit, ea tantum ratione verum est, quatenus res omnes invicem comparatae habent in aliquo similitudinem inter se, ita ut species spiritalis obiectorum sensilium dicatur modo quodam similis substantiis spiritalibus, non tamen ab illis producat, sed a propria sensilium obiectorum natura, quae apta per se est ad talem speciem, et imaginem in medio et in sensu producendam."

23. *De sensu agente*, IV, 841. Albert discusses the multiplication of species at *De anima*, ed. C. Stroick, (Vol. 7 of Albert's *Opera Omnia*, Cologne 1968), II, tr. 3, c. 6 (p. 106). The relevant passages are translated and discussed in L. Dewan, O.P., *St. Albert, the Sensibles, and Spiritual Being*, in James Weisheipl (ed.), *Albertus Magnus and the Sciences*, Pontifical Institute of Mediaeval Studies, Toronto 1980, pp. 305-307. Note that despite his reliance on Albert, Zabarella is presenting a much different theory. The common ground is that no external agent is needed for the production of the sensible species. As Dewan makes clear, though, Albert's theory of the species is one in which the species is immaterial since it arises solely from the immaterial component of the sensible composite. As we shall see, that is not a view that Zabarella holds.

species spiritually, which is simply shorthand for the claim that it does not produce another real quantity, but rather some likeness by which we can sense the original quantity.

At this point, Zabarella seems to have argued himself into a corner. He has concluded that the sensible species is produced by the very nature of the sensible quality inherent in a material object. What he has neglected to deal with, though, is the fact of the basic intuition that motivates higher agency views in the first place: that the spiritual is nobler than the material. He seems to have concluded that the material object by its nature produces a spiritual species without resolving the dichotomy between the material and the spiritual.

In fact, Zabarella does resolve this dichotomy, but he does so in a rather unusual way. In fact, he rejects the notion that the sensible species is spiritual in the usual meaning of the term, that is, a form apart from matter. In short, we must be careful to understand the intentional existence of the species and its manner of acting without arguing that the species is immaterial. The problem that higher agency views try to solve only arises if we fail to distinguish the intentional from the immaterial. Such a failure opens the gap that the higher agency views tries to bridge. Zabarella, though, wants to deny that any such gap is present. He makes the crucial concession in this direction when discussing Thomas's position concerning the action of separated substances on material substances. There he states that the likeness between spiritual species and spiritual substances is so in "a small (*parva*) way and is truly (*prorsus*) equivocal." He goes on to say, in reference to Nifo's view:

Now, since the spirituality of these species is not the same as in God and substances separated from matter, but is said totally in an equivocal manner, it is useless on account of this likeness in name alone to relate it more to God or to separate substances than to the proper nature of these objects by which they are produced²⁴.

We could not ask for a clearer statement of his position. Moreover, if the term "spiritual" as applied to God and separate substances and the term "spiritual" as applied to the species produced by sensible qualities are equivocal, then we must re-evaluate just what it means to call a sensible species "spiritual." Unfortunately, Zabarella is not nearly as explicit about how to define "spiritual" in this context as we might like. Nonetheless, he provides us with some remarks that should help us develop an answer to this question. Most importantly, he tells us that "it must be denied that the species is nobler than the object..."²⁵. In short, then, the spiritual is not nobler than the material in the case of sensible species and their objects. Granted, he points out, spiritual sub-

24. *De sensu agente*, III, 836: "Quum enim non eadem sit harum specierum spiritualitas, quae De, et substantiarum a materia abiunctarum, sed penitus aequivoce dicta, vanum est ob hanc solius nominis similitudinem referre illam potius in Deum, vel in substantias separatas, quam in ipsorum obiectorum propriam naturam, a qua producuntur."

25. *De sensu agente*, VI, 844: "Ad hoc ego puto negandam esse consequentiam. Et ad probationem negandum esse speciem esse obiecto nobiliorem...."

stances are nobler than material substances, but species are accidents, not substances. A spiritual accident is related to the material accident as effect to productive cause. Accordingly, all we can say about the ontological status of the spiritual accident is that it has a “lesser imperfect entity” (*minor entitas*) than the material accident²⁶. Elsewhere he describes species as “tenuous entities,” thereby denoting their material, but defective character²⁷. It follows that an accident does not act above its natural powers in producing a spiritual species. In fact, given the equivocal use of the term “spiritual” in this context, it really seems as if Zabarella has, in essence, “naturalized” the production of the species. The species is not some mysterious process resulting in a spiritual entity, but simply a way to refer to the process by which sensible qualities impinge on our sense powers.

Zabarella is explicit about the materiality, as well as spirituality, of the species. That he can use both terms of the same entity is good evidence that the word “spiritual” is functioning as shorthand for something like “tenuousness.” This reading is confirmed in his discussion of sound. He tells us that sound is something both spiritual and material and provides us with examples designed to point out the dual nature of sound. The point here is that the action of sound is twofold: it has an intentional, that is, cognitive action, as well as a material, that is, natural action. So, for example, sound cannot be identified with the blowing wind that carries it, because sounds can be heard even when the wind is blowing in the opposite direction. In that respect, sound is not material. Nonetheless, sounds arrive in a certain order, that is, there is a temporal gap between the striking of a bell with its concomitant sound and the arrival of that sound at the ear. Such a temporal order depends upon some material nature. The unspoken premise here is that true spiritual beings act instantaneously. In fact, vision seems to be just such a case – there is no temporal lag between the presence of a colored object and our vision of it. This means, he tells us, that colors are the most spiritual of species. After all, they are not affected by strong winds or any motion in the air. But here we must ask what it means to say that the species of colors are the most spiritual? We seem to have removed the “temporal lag” that marked the materiality of sound²⁸. Is “spirituality” still being used in an equivocal manner? I think so for two reasons. First his discussion of the equivocal nature of the term “spiritual” is decisive. If Zabarella were privileging color species as distinctively spiritual in the sense of immaterial, he would be violating the very rule he had just set forth. Additional evidence that he is not making color species an exception can be found in his treatment of light in his work *On vision*. There he characterizes the scholastic debate about the nature of light (*lumen*) in the medium, contrasting the extreme positions, that light is a pure intentional being and that light is a pure real being, with the middle position that light is both intentional and real. Now,

26. *De sensu agente*, VI, 845.

27. *De sensu agente*, VI, 846.

28. *De sensu agente*, VI, 847.

Thomas Aquinas had argued that light in the medium had to possess real being, not intentional being, because if it possessed intentional being, the medium itself would be able to see it²⁹. Zabarella, however, argues that the light in the medium has both a real and an intentional being by pointing out: “The cause of the error of many was that they did not think that something could be both an intention and a thing (*res*)”³⁰. The subtext here is that Thomas had to argue for the non-intentionality of light or else he would be committing himself to the immateriality of light. However, there is such a close connection between immateriality and intentionality that Thomas could not imagine that something could be both intentional and material.

At this point, it is important to note that Zabarella consciously redefines the term “intentional” in such a way as to prevent us attributing to it some odd metaphysical status. He points out that the Latin thinkers (*Latini*) understood the term to refer to “that through which the soul, as through a formal reason, tended (*tendit*) to the object to be known”³¹. Consequently, they call all species, sensible and intelligible, “intentions.” Zabarella, however, argues that an intention is only an “attention” (*attentio*) and “attentiveness” (*diligentia*) in the soul to the consideration of some reality³². This reorientation of the term “intention” to refer to an activity of the soul and not an attribute of some entity reinforces his theory about the sensible species in two ways. First, it signifies that the soul, and not species, causes sensation and knowledge. Second, it calls into question the need for the species to be some sort of special metaphysical entity by which cognition comes about. We cannot properly understand the import of this redefinition of “intention” until we discuss how he thinks cognition arises and I shall postpone discussing the notion of intentionality until then. For then present, it is sufficient that we recognize that Zabarella has rejected explicitly the view that the intentional existence of the species, with its consequent intentional activity, requires an immaterial existence on the part of the species.

These passages from *On vision* while clarifying and confirming the reading of “species” that I am pressing, at the same time point to a potential weakness in Zabarella’s position. By insisting on the derivative, defective and tenuous nature of the species caused by the sensible quality, Zabarella comes close to making the gap between sensible quality and sensible species so great as to render accurate sensation problematic. If the species, received in the organ, is supposed to be the occasion for the soul’s attention, surely the species needs to have some unproblematic connection with the original sensory quality. If that is not going to be some sort of metaphysical resemblance, what can it be? His

29. *De visu*, ed. cit., Book. I, Chapter 6, column 870.

30. *De visu*, I, 7, 872: “Sed causa erroris multorum fuit, quod putant non posse aliquid esse simul intentionem.”

31. *De visu*, I, 6, 870: “Latini quidem huius vocis etymologiam considerantes, dicunt intentionem vocari id, per quod tanquam per rationem formalem anima tendit in obiectum cognoscendum.”

32. *De visu*, I, 6, 871.

way out of this potentially messy situation is to stress the representative nature of the species. What he has in mind here is that while the species and the quality from which it arises differ “numerically, specifically and generically,” at the same time they are identical at the level of representation³³. I do not see that he has a direct argument for this thesis anywhere. Instead, I suspect that here we simply reach a baseline philosophical commitment. Given a commitment to the basic veridicality of our sensory experience, coupled with the need to demystify the sensible species by rejecting its greater nobility, he is forced to posit this identity on the representational level. While he does not provide us with an argument as such, he does suggest that the crucial difference between a material accident (fire) and a spiritual accident (the species of fire) is that the former is numerically different, while the latter is numerically the same. It is easy enough to see the difference between two “material fires”, but it is rather more difficult to recognize numerical sameness between the fire and its species. However, if my interpretation of the nature of the sensible species is correct, then it can go some way towards explaining what he might have meant in talking of numerical identity. For example, if the species of a color is only some material derivative of the very same color, then it is numerically the same. If it is merely the tenuous, non-perceptible color itself, then it makes perfect sense to say it is the same color, even if the sensible form is visible and the species is not. Even though the species of a green object is not itself visibly green, it still must be structured such as to present to the sense power whatever resources it needs, in addition to itself, to sense the green and those resources are present in the original green object. It is both numerically the same as representative and as material and the latter explains the former. It is because the species is both too weak to produce a true action materially and yet is continuous with the originating sensible form that it can represent that form without acting materially on the sense power.

We are now in a position to see the basic error of the medieval approach from Zabarella’s perspective. Because they failed to appreciate the two major stages of sensory cognition – the reception of the species and the act of sensing –, they were led to build in, as it were, all the causal mechanism of sensation into the species alone. In this way, they could commit themselves to the passivity of sense, in accordance with the Aristotelian dictum that “sense is a matter of being acted upon.” However, they could only do this by making the species excessively “noble”, to use Zabarella’s terminology, and by attributing nobility to the species, they made enormous problems for themselves. Hence the need felt by many thinkers to posit some sort of elevation by an external agent reflects the predicament faced when the primary concern is to make the spiritual species the prime cause of sensation. In restoring the nature of the species to a status lacking in nobility, as it were, Zabarella returns the focus to the representational nature of the species. The species need do no more than provide us with a reason for directing our attention in one way rather than

33. *De sensu agente*, V, 844.

another. The mere reception of a species representing green does not cause us to see green. If it did, there might be a temptation to think of that species as both being green and providing the content and object of our sensation. Instead, by stressing the defective and tenuous materiality of the species, he preserves a level of continuity between sensible form and species, while avoiding claiming that the species itself is identical to that which produces it. The species of green is not green, but also it is not some noble and spiritual being.

2. The Cause of Sensation

If the reception of a species representing a green object is not the full cause of our sensing it and if it is a natural and material process, then how does sensation arise? Zabarella's reduction of the metaphysical status of the sensible species has as a corresponding consequence the elevation of the sense power's role in sensation. After all, if the species is not the efficient cause of sensation, something else must be. He canvasses three possible candidates for the efficient cause of sensation. The first holds that the sensible object alone, presumably through the species, is sufficient for producing sensation. The second holds that the sense power alone has an active role to play in the production of sensation. Finally, a mixed view is possible, one in which both the sensible object and the sense power somehow collaborate in the production of the sensory act³⁴. Rather than expound each of these positions with several textual references, Zabarella decides to emphasize instead the main point of each and provide a summary argument. While this is less than helpful for the historian, it does provide a much needed focus for his own account, since it will play off the weaknesses he sees in the arguments for each view. I will follow his lead insofar as I am not concerned with the question of whether Zabarella has read his predecessors accurately, but am content with showing the main points that his discussion makes available for his use as he sets out his own position.

On Zabarella's reading Thomas Aquinas is representative of the view that the object alone is the active agent in sensation. The argument for such a view, according to Zabarella, rests on the fact that the sensible object is sensible *per se*, and thus it follows that the object alone is sufficient to move the sense power and produce sensation. Of course, the object moves the sense by means of a species in the sense organ and this species functions as a dispositive agent from which sensation necessarily follows³⁵. The foundational flaw in this sort

34. Zabarella attributes each of these views to a particular philosopher, respectively, Thomas Aquinas, John of Jandun and John Duns Scotus. Since I am not here concerned with Zabarella as a historian of philosophy, I set to one side the question whether these are accurate attributions. Zabarella refers to Thomas's *Commentary on the De anima*, III, lectio 3 and Duns Scotus's *Commentary on the Sentences*, I, d. 3, q. 7 (= *Ordinatio* I, d. 3, pars 3, q. 2). The Thomas passage explicitly states that no sense power can be both active and passive.

35. *De sensu agente*, VII, 848.

of view rests on its implied reversal of the relative nobility of sensible object and sense power. No one disputes, he believes, that the sensible object is an “ignoble accident” while the sense power is a substantial form and “exceedingly noble.” Nonetheless, on the Thomistic account, the opposite must be the case. A proponent of that account could, Zabarella thinks, try to get around this unwelcome result by arguing that one thing is “more perfect” than another if its most perfect operation is nobler than the most perfect operation of the other. Now, on the purely passive account the most perfect operation that sense performs is to be passive (*pati*) and receive sensation. By contrast, the most perfect operation of the sensible object, or its species, is to act and produce sensation, and since it is nobler to act than to be passive, the object is nobler than the sense power under this description. This does not mean, the proponent would say, that the object is absolutely nobler than the power, but instead merely that relatively speaking (*secundum quid*) the object is nobler. The problem Zabarella sees with this response is that while it is certainly true that something really less noble can be relatively nobler, that is not the case here because the acts at issue are ones that are most perfect and most special to the two entities under consideration. We are not talking about just any act of the sense power, we are talking about its most important act and it is the same with the sensible object. So, despite what proponents of the passive view might hope, they are really committed to the claim that the sensible object is nobler than the sense power, a claim that all admit is false³⁶.

While rejecting the position that would make sensation an essentially passive experience, Zabarella is reluctant to embrace the opposite position that the sense power alone is the active agent producing sensory experiences. That view, which he associates with John of Jandun, holds that there are two really distinct faculties or powers within the sensory power itself, one an agent sense and one a potential sense. The picture is of one faculty, sense, with two distinct components and it is based on analogy with the distinction in the intellect between the agent intellect and the potential intellect. This analysis applies to all five external senses, so in actuality, there are five active powers in the sense power as a whole as well as five passive powers³⁷. The intuition behind Jandun’s position is two-fold. First, he recognizes that a purely passive account falls prey to the objection Zabarella makes. Indeed, Zabarella credits Jandun with the argument that he uses against the passive account. In addition, though, Jandun advances a more positive consideration for positing an agent sense that would make the sensory power the efficient cause of sensation.

36. *De sensu agente*, VIII, 849-50.

37. *De sensu agente*, VIII, 850. Mahoney, *Agostino Nifo’s De sensu agente*, n. 23, pp. 124-25, provides a succinct summary of Jandun’s question on the agent sense. See also his study *Themes and Problems in the Psychology of John of Jandun*, in J. Wippel (ed.), *Studies in Medieval Philosophy*, Catholic University of America Press, Washington, D.C. 1987), pp. 277-78. There is an extensive discussion of the topic in S. MacClintock, *Perversity and Error: Studies on the “Averroist” John of Jandun*, Indiana University Press, Bloomington 1956), pp. 10-50.

After pointing out that proponents of the agent sense position must hold that the agent sense is not a power that actually senses because on this view the potential power senses, Zabarella argues that an absurd consequence follows from positing an agent sense. The agent sense, as a non-cognitive power, would have to be nobler than the potential sense power because an agent is always nobler than the patient. Surely, though, he points out, no one would want to hold that a non-cognitive power is nobler than a cognitive power. This seems like an obvious point, and Zabarella acknowledges that his opponents have considered it and tried to respond. The proposed response asserts that the agent sense is only relatively nobler than the potential sense insofar as while it is an agent, and hence nobler *qua* agent, the potential sense is nobler *qua* its ability to sense. Against this attempt to escape the objection, Zabarella pushes the same principle that he used against the purely passive view, namely, that from the most perfect operation we must infer a greater perfection absolutely, not just relatively. Since the act of sensing is intrinsically nobler than the production of a species, the potential sense power would have to be nobler absolutely³⁸.

There is an additional problem with the agent sense view. Zabarella believes that its proponents have misunderstood the role played by the agent intellect in cognition and hence when they argue for the analogous need for an agent sense, they import that misunderstanding into their theory of sensation. In brief, they believe that the role of the agent intellect is to produce knowledge, although it is a non-cognitive power. In the same way, the agent sense would be productive of sensory cognition although it would not itself be sensing. In both cases, the error is located in the claim that the agent is the efficient cause of the cognition. In fact, Zabarella argues that the role of the agent intellect is not to produce cognition, but to produce an intelligible species. If that is the case, no such power would be needed for sensation insofar as the sensible species is produced by the sensible object³⁹.

Now, if the efficient cause of sensation is not to be located in the sensible object alone, nor in the positing of some separate agent sense, it is plausible to think that it might be found in some cooperative relation between sensible object and sense power. Nonetheless, Zabarella rejects such a view because it still reserves some efficient causality, however secondary or instrumental, to the object or its species and he wants to deny that either can play any productive role in a sensory operation:

Thus the object can have no power (*vis*) in the production of cognition, although it can furnish something to sense that is necessary for sensation. For it produces (*efficit*) the species without which sensation could not arise, but it in no way is the efficient cause. Therefore the species itself does not have the role of the agent in sensation, but only the role of generated form and produced effect⁴⁰.

38. *De sensu agente*, VIII, 850.

39. *De sensu agente*, VIII, 850. Note that he discusses extensively the action of the agent intellect in his work *De mente agente*. For comment, see Poppi, *La dottrina della scienza*, cit., pp. 80-108; Spruit, *Species Intelligibilis*, cit., pp. 231-34.

40. *De sensu agente*, VIII, 850-51: "Obiectum vero nullam potest vim habere efficiendi

That, then, is the position that Zabarella must defend. Neither the object nor its species has any efficient causality in the process of sensation, although they play a necessary role. What leads him to this extreme view, and how does he distinguish between the necessary, but non-efficient, causality of the species and the efficient causality that produces a sensory operation?

It turns out that there are three moments or instants in the sensory process, with the reception of the species in the organ being only the first. For example, color is received in the eye and the reception of the species is an organic process, in keeping with the materiality of the sensible species. However, the organ is not just matter, but informed matter and it is informed by the soul. Hence, the soul must play some role as well in the process of sensation and the second stage of the sensory process, consequent on the reception of the species, is a “judgment” proper to the soul. The use of the term “judgment” here is a bit problematic but in context, it really means only a kind of awareness:

For it often happens that we do not see a colored reality (*res*) placed before the eyes because although an impression of the species arises in the eye (for if no impediment exists, this cannot be denied), nevertheless the soul, intent on other realities, judges nothing about the species⁴¹.

Here Zabarella points to the common enough experience of attention: the sense power does not sense everything within its range of objects. Rather than argue implausibly that species of items within the sensory field were not received, he holds that such species are received, but not noted by the sensory power. Again, this view is consistent with his teaching on the sensible species whereby the sensible object continuously and by its very nature produces species. In addition, it is consistent with his remarks on the proper definition of intentionality in the *De visu*. Consequently, it is perfectly reasonable for Zabarella to deny that the reception of the species is sufficient for sensory cognition and to point towards an activity of awareness that is proper to the soul as informing the sense organ.

However, it is not enough, Zabarella thinks, to simply posit this sort of judgment on the part of the soul; we must also explain the way in which this judgment comes about. There are two misunderstandings we need to avoid at this

cognitionem, licet possit aliquid sensui subministrare necessarium ad sensationem, efficit enim speciem, sine qua sensio non fieret, sed ipsius sensationis nullo modo est causa effec-trix: ipsa vero species in sensione non habet locum agentis, sed solum formae genitae, et effectus producti.”

41. *De sensu agente*, IX, 852: “Nam saepe contingit ut rem coloratum ob oculos positam non videamus, quia licet fiat impressio speciei in oculo (nullo enim existente impedimento id negari non potest) attamen anima aliis rebus intenta, speciem illam non iudicat.” There are real echoes of the thought of Albert the Great in Zabarella’s discussion about the act of sensation, just as there was for his account of the sensible species. Albert, too, placed “judgment” (*iudicium*) at the center of his account of sensation. However, he located the faculty of judgment in the common sense, not the soul itself. For Albert, see *De anima*, II, 4, 8 (159.71-80) For discussion, see M. Tweedale, *Origins of the Medieval Theory that Sensation Is an Immaterial Reception of a Form*, «Philosophical Topics», 20 (1992), pp. 219-20.

point. First, it might seem that he is proposing an account in which the species received in the sense organ is subsequently sensed by the ensouled organ. That cannot be correct, though, because it would mean that the object of sense would be the species itself. Instead, as we saw above, the nature of the species is best understood if we recognize that it is intrinsically representational and to be representational is to refer to something other: the species of red received in the eye represents the red in the rose and we see the rose, not its representation. Second, it would be tempting to read Zabarella as arguing that the sense power is somehow moved by the sensible species and that the action of the species explains why Aristotle says that “to sense is to undergo.” Again, this cannot be correct and the reason is that sensation is an immanent, not a transitive act where an immanent action is one that exists in the agent, while a transitive act is one in which the action does not exist in the agent. An example of the latter would be the way in which the action of a builder comes to exist in the house built, and does not remain in the builder. Because sensation is an immanent act, then, the reception of a species from an external object cannot constitute the manner in which it is passive, since that passivity is not part of the act of sensing. Otherwise, we would be forced to say that the reception of the species has some causally efficient role to play in sensing. Zabarella concludes that the very same sense power must be both active and passive within itself, otherwise sensation would not be in the person sensing. Thus, that which is received in the sense power is not the species, but the very act of sensing:

Therefore, in this way vision is an immanent action because it is received in the agent itself, namely, in the soul or in the animate body insofar as it is animate. Thus, if vision had no other agent than material color, it would be without a doubt a transitive action⁴².

The immanence of the act of sensation is the reason why there must be three moments, and not just two, in the act of sensation. If there were only the two mentioned so far, sensation would be a transitive act and that would threaten the unity of the act of sensation.

The third moment in the sensory process occurs when the soul’s awareness of the action of the sensible species on the organ is received in the animated organ, that is, the sense power. By distinguishing these three moments in this way, Zabarella hopes to preserve both an activity and a passivity within the sensory process. The activity is the “judgment” or awareness of the soul alone provoked by the reception of the species while the passivity is the reception of that very awareness in the sense power, a composite of soul and organ. Schematically, then, Zabarella can say: “In this way, for example, in seeing vision becomes (*fieri*) a color, not indeed a material color, but a spiritual one”⁴³.

42. *De sensu agente*, IX, 852: “Sic igitur visio est actio immanens, quia recipitur in ipso agente, nempe in anima, seu in corpore animato quatenus est animatum: quod si nullum aliud agens haberet visio, nisi materialem colorem, esset absque dubio actio transiens.”

43. *De sensu agente*, X, 853: “Ita ut visus in videndo fiat color, non quidem materialis, sed spiritalis.”

Again, we have to deal with the material/spiritual distinction. It is clear that Zabarella's intent is to safeguard the identity of the knower with the known while distinguishing the species from the act of cognition. At the same time, he wants to hold on to the fact that sensation, unlike intellectual cognition, is organic at least to the extent that sensation takes place in the organ of sense. After all, the distinguishing feature of intellectual activity is that it is non-organic. If the species is not the cause of the sensation and does not specify the way in which it is passive, he needs some other mechanism to account for the passivity of the act of sensing. That last phrase, "passivity of the act of sensing," sounds paradoxical, but is necessary to ensure both the agency of sense and its passivity, the former consisting of the soul's awareness, while the latter consists in the reception of the soul's awareness. Why does Zabarella present this complicated picture of the process of sensation? The central issue is his desire to explain the manner in which sense acts through judgment or awareness and he believes that prior thinkers have not worried sufficiently about this problem. In short, if the species has no efficient causality in the sensory process and if the sense power itself must be the agent in sensing, then there must be some passivity in the sense power to save the notion that sensing is a kind of change. Since the species and the agency of sense cannot provide the necessary element of passivity, some other feature must. Now, we have seen that the process of sensation is an immanent act, not a transitive one, so the activity and passivity present in sensory change cannot be transitive. Thus, the way in which the soul causes sensation cannot be by what Zabarella calls a "true action" but must occur in some other manner suitable for immanent actions, otherwise, we would be forced to posit two distinct sense powers, an active one and a passive one, despite Zabarella's previous strictures against such a position. Instead, of a true action, Zabarella considers the action of the soul an "emanation." The worry driving his account is simple enough. Every true agent needs a patient in which to act and in a transitive action one and the same thing cannot undergo and receive something from itself. Hence the action of the soul in sensation cannot be transitive, or it would jeopardize the unity of the act of sensation and its immanence. Accordingly, Zabarella refers to the manner in which one agent acts within itself, and not in another, as an emanation. An emanation, then, is an action that can be performed within a process of immanent change, and in the case of sensation refers to the action of the soul by which it is aware of the species received in the sense organ.

First, from the action of a material object there is a reception of the species in the organ, for example, of color in the eye. Second, the soul brings forth a judgment and in this way is said to act. Third, the judgment is received in the whole composite, namely, the animate organ and thus the soul, as its part, is said to undergo⁴⁴.

44. *De sensu agente*, X, 854: "Primum enim ab actione obiecti materialis sit in organo receptio speciei, ut coloris in oculo; secundo anima iudicium profert, et ita agere dicitur; tertio recipitur iudicium in toto composito, nempe organo animato, et ita anima tanquam eius pars dicitur pati."

The emanation of the soul's awareness of the species results in the change within the sense power itself. Zabarella is quick to note that this distinction between the soul's awareness of the species and its reception in the sense organ is only a difference in nature. Temporally, they are simultaneous⁴⁵.

At this point, I want to discuss a central feature of this account of sensation in a bit more detail. We have seen that Zabarella's naturalization of the sensible species has a corollary in his theory of sensation. Since he places a stress on the activity of the sense power itself, its intention and judgment, at the expense of the reception of the species, we need to think a bit more about the nature of this judgement or awareness. A metaphor that Zabarella uses in this context is important. He suggests that the soul "drinks up" or "absorbs" (*imbibere*) the species received in the organ⁴⁶. The point he is making seems simple enough, but the process by which the soul is aware of the reception of a species is less than clear. If it were the ensouled organ, the power, that was aware, the thesis would sound less strange. However, in making it the soul, directly, that is aware of the species and senses through it, he accomplishes two things. First, he emphasizes the activity of sense experience, the attentive awareness that we bring to it. In short, it follows that there can be no sensation without concomitant awareness. Second, he has relocated, as it were, the place of mystery in sensation. Unlike those thinkers who hold a view that builds immateriality into the natural processes of sensible objects in such a way that the species is sufficient for cognition, Zabarella opts rather for keeping the naturalness of the creation of the species. Its residual materiality is continuous with the material sensible forms from which it arises. This allows him to attribute the true spiritualizing process to an agent – the human soul operating without an organ – that is both internal to the person sensing, as opposed to God or separate substances, and capable of creating something truly spiritual and intentional. Even the metaphor of "absorbing" diminishes the activity of the species and emphasizes the activity of the soul. There is no question that what is nobler can act on that which is less noble and so Zabarella reorients the discussion of sensation so that the more noble agent is the active one. Ultimately it is a question of where we want the mystery in an account of sensation to reside: in the nature of the species or in the very act of sensation. Zabarella makes clear the consequences of both options while choosing to highlight the work of the soul.

45. *De sensu agente*, X, 854-55.

46. *De sensu agente*, X, 854. This metaphor has deep medieval roots, and also is used by Zabarella in his discussion of intellectual cognition. For discussion of the history of "*imbibere*" in the context of medieval discussions of cognition, see Spruitt, *Species Intelligibilis*, II, 228-230 where he traces the notion of "*imbibere*" back to Olivi. Of particular interest is the fact that Zabarella rejects this metaphor when discussing the relation between phantasm and agent intellect, since the phantasm is not directly accessible to the intellect prior to the production of an intelligible species. See his *De speciebus intelligibilibus*, chapter VI, columns 992-95.

3. Conclusion

It must be admitted that this account of the process of external sensation is complex, perhaps overly complex, but it does point up the difficulties in developing an Aristotelian inspired theory of sensation. To Zabarella's credit, he calls into question many central themes of the medieval tradition, while also working within its parameters. Most remarkable is his claim to be giving an Aristotelian account, since he accepts the existence of species where Aristotle does not. Nonetheless, in his rethinking of the nature and activity of species, he also points towards the future development of theories of sensation by rethinking the notion of "intentionality." As a result, his view begins to sound rather like that of Descartes. For example, Descartes is insistent that all awareness is apperceptive and that unnoticed sensations are not mental items at all. Moreover, Descartes replaces what he views as the scholastic view that sensation consists of the immaterial reception of forms in a corporeal sense power with the view that sensation must be a process that joins matter and mind⁴⁷. Zabarella, in locating intentionality in the operation of the soul apart from the sense power, ends up holding similar views to Descartes, at least to the extent that all sensation is for him apperceptive – there is no sensation of which we are unaware – and involves the joint cooperation of the corporeal (the sensible species and ensouled organ) with the immaterial (the soul apart from the organ).

Of course, I do not want to press the similarities between Zabarella and Descartes too strongly, since their conception of matter is so very different. Nonetheless, I see it as striking that Zabarella develops an account of sensation in conscious reaction to the Medieval tradition and in which the soul, apart from the body, is the efficient cause of sensation and in doing so ends up with a theory in which the soul and body contrast so sharply in their operations⁴⁸. There is at root a kind of bi-phasic aspect to the sense power. It is both the inert receptacle of sensible species as well as the receiver of sensations caused by the soul. It is not easy to see why, if the soul is a constituent part of the sense power as it must be to receive the senses caused by the soul operating alone, the soul alone does the sensing. The explanation can be found in Zabarella's recognition that sensing as an activity, while it might have reference to a sense power, somehow transcends the corporeality, even the ensouled corporeality of the sense power.

47. For a very useful discussion of Descartes, sensation and intentionality, see A.D. Smith, *Berkeley's Central Argument against Material Substance*, in J. Foster and H. Robinson (eds.), *Essays on Berkeley*, Clarendon Press, Oxford 1985), pp. 37-58, especially pp. 44-50.

48. One persistent issue that arises in discussions about theories of an agent sense is the role played by the thought of Augustine. Thus, for example, the literature on Jandun's theory is deeply divided over how "Augustinian" his account is. I see no trace of Augustine in Zabarella. Instead, we see that the issue of the relation of sense and soul, of the material and the immaterial, arises from passages within the Aristotelian tradition, at least broadly conceived. For Jandun's alleged Augustinianism, see Mahoney, *Agostino Nifo's De sensu agente*, p. 120, n. 9, and the references cited there.